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ABSTRACT

The General Systems Theory paradigm, which has been criticized for its emphasis on consensus, hierarchy, and growth while failing to appreciate diversity or alternative structural possibilities, is examined in this paper. A review of the literature in management and administrative science revealed these criticisms to have merit, but it also showed that much of the difficulty has stemmed from the conceptualization typically applied to communication within the organizational domain; human communication is envisioned as isomorphic with electronic communication, as a mechanistic, linear process. While many organizational theorists recognize perceptual individuality of human beings, few recognize the importance of that individuality for communication within organizational settings. In part, the reason for this in the past has been the lack of a systematic theoretical and methodological framework for examining diversity. However, it is suggested that research developments in the areas of cognitive-constructivism and coorientation now make it possible to coherently examine perceptual differences within organizational environments. (Author/JF)

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GENERAL SYSTEMS THEORY AND ORGANIZATIONAL COMMUNICATION: A CONSTRUCTIVIST - COORIENTATIONAL PERSPECTIVE

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GENERAL SYSTEMS THEORY AND ORGANIZATIONAL COMMUNICATION:
A CONSTRUCTIVIST - COORIENTATIONAL PERSPECTIVE

The single most influential development within the discipline of organizational administration and management during the last quarter century has been the emergence of General Systems Theory (GST) as a predominant theoretical and empirical framework. Fostered in the writings of Ludwig von Bertalanffy (1934, 1967, 1968, 1972), Kenneth Berrien (1968), Chester Barnard (1938), and others, GST proposed to deliver the study of living organisms from the clutches of the prevailing mechanistic world view. By emphasizing the "wholeness" of the entity in question and the structural isomorphic relationship or similarity of otherwise distinct entities, GST promised to provide a linking function between different sciences.

Recently, however, a number of criticisms have been voiced concerning applications of the GST format. Predominant among those criticisms have been the assertions of Peery (1972, 1975) and F. Thayer (1972) that adaptations of a systems perspective to organizational administration have evinced little appreciation for intra-organizational conflict, diversity of values, or the role of the individual while overemphasizing the concepts of consensus, growth, and hierarchy. Central to these criticisms is an implicit reflection on and indictment of the role which communication has assumed in typical systems formulations. That role has largely been in terms of feedback (cybernetics), channels (network analysis), or amount (overload), rather than in terms of the human beings involved. Ironically, GST was proposing a break from analytic procedures which prescribed a part-to-whole analysis of the entity in question while communication, as an entity, was being dealt with by systems theorists in much that particularistic fashion. The predominant tendencies have been to approach organizational communication either

mechanistically (describing it as purposive, functional, rational and, often, unidirectional), or methodologically (describing the "appropriate" method of examination while failing to specify the paradigmatic or theoretical basis of the examination).

The question which arises at this juncture is: Does the General Systems Theory framework, a priori, dictate this type of a perspective on communication in general and organizational communication in particular? That is to say, do these criticisms stem from faults within the paradigm of GST itself, or should the criticisms rest with the theorists and researchers who have attempted applications of GST to the organizational domain? The purpose of this paper is to explore the relationship between the dictates and criticisms of GST relevant to organizational communication and, then, to offer a different perspective on organizational communication.

Dictates of General Systems Theory

General Systems Theory emerged from a search for isomorphisms between different disciplines. Specifically, GST grew from the biologist's attempt to draw analogies between living organisms and social organizations. Bertalanffy (1972), discussing the historical development of GST, notes that this search for isomorphisms was originally criticized as only being a hunt for superficial similarities. Rather than being an exercise in simplification though, GST represents a decided attempt to discover those systems laws which hold across phenomena and across disciplines. It is an effort after communication between disciplines.

The emphasis on isomorphisms is not intended to ignore or belittle the existence or importance of differences. On the contrary, the search for analogies from system one to system two serves the function of highlighting instances of conflict or contrast. Put in a slightly different fashion, "it is only by dis-

covering where the similarities cease and the differences begin that we can evolve toward a genuine understanding of the area of discourse" (Berrien, 1968, p. 11).

Basic to the development of the GST formulation is, of course, the concept of "system", and basic to the concept of system is the notion of "interrelationship" or "interdependency". A system is typically defined as a set of elements interrelated with each other and with their environment (Ackoff, 1969; Berrien, 1968; Bertalanffy, 1972; Hall & Hagen, 1969; Kast & Rosenzweig, 1972, 1974). The elements (or components or subsystems) are defined as belonging to the system by virtue of the fact that they interact (1) within the boundaries of the system (2) with other components of the system (3) to "produce a product that is distinguishable from the interactions themselves and from the inputs" (Berrien, 1968, p. 17).

The "boundary" within which subsystems act and interact is that area defining one system versus another system. It serves the function of filtering the flow of inputs and outputs between the system and its environment. As such, the boundary is an interface between system and suprasystem (environment) in which the system exists. As Ruben (1972) notes, "the way system, subsystem, boundary, and environment get defined depends mostly upon the level of analysis one selects--and that decision depends largely upon how one conceived of the situation in the first place" (p. 128). In the case of biology, a cell might constitute the system for study while, in the case of management science, the total organization is typically viewed as the system.

The importance of the concept "interaction" to the GST framework cannot be overly stressed. Historically, emphasis has been placed on the individual components of the entity in question. With the advent of GST, that emphasis shifts from analyzing components in isolation to viewing components in dynamic relationship with each other. It is the examination of that interaction of element with

element and element with environment that provides the research focus for GST.

It is vital to note that, in at least three important senses, systems are dynamic rather than static entities. The first sense is in the flow of information, materials, individuals, i.e., inputs, through the system, eventually resulting in a "processed" output. Emphasis is on the movement, that is to say, the input-throughput-output flow by which an overall system objective is pursued. This process of input-throughput-output provides a second sense in which systems are dynamic. It is this process which serves to bind subsystems to each other within the system environment. Subsystems, by definition, interact with one another and, thus, stand in dynamic relationship. Whatever affects one subsystem must, in some fashion, affect associated subsystems. The final sense in which systems may be said to be dynamic is in the fact that systems evolve over time. Systems exist in the emergent passing present; that is to say, they exist in and develop through the perspective of time, possessing a past, present and future. In that sense, they must be approached in a fashion which respects their active existence.

Organizations as Systems

It seems somewhat superfluous to declare an organization a system and, therefore, an appropriate entity for analysis within a GST framework. The word "organization" specifies a confluence of relationships, i.e., a system. Schein (1970) defines an organization, in part, as "the rational coordination of the activities of a number of people. . ." (p. 9). Thus, Schein defines the components of an organizational system as people and the interrelationships of those components as being a "rational coordination". Johnson, Kast and Rosenzweig (1964) adopt a similar perspective as they explicitly define the business organization as a "man-made system which has a dynamic interplay with its environment--customers,

competitors, labor organizations, suppliers . . . the business organization is a system of interrelated parts working in conjunction with each other in order to accomplish a number of goals. . ." (p. 371).

Any number of focal points may be assumed for an organizational-GST analysis. Dependent upon research interests, a macro-viewpoint may be adopted, examining overall organizational functioning within the surrounding environment (defined as competitors, consumers, ecological environment, etc.), or a more micro-viewpoint may be adopted, examining relationships of individual employees within and to their environment (the work group, the division, the union, the total organization). By far, the more popular application of the GST framework has been in assuming a macro-viewpoint, treating the total organization as the system and some aspect of the competitive environment as the suprasystem. Within this perspective, decision-making, decision-transmission, and decision-enactment become the focal objects (Johnson, Kast & Rosenzweig, 1964; Scott & Mitchell, 1972; Simon, 1961). Rarely (if ever) has more that a passing mention been made of the fact that individuals themselves constitute systems, with organizations serving as a form of suprasystem for the individuals. Obviously, this emphasis on viewing the total organization as system is product of primary management concern, i.e., the achievement of a total organizational goal. Whatever the level of focus though, the concern is with an analysis which respects the holistic and open nature of the system.

Systems as Holistic Structures

The recognition of systems as "wholes" or "holistic" structures represents a decided break from the classic, analytic procedure of science. According to analytic analysis, the whole exists in the sum total of its parts. Understanding the whole, then, is a matter of first dissecting it into its component parts,

analyzing those parts, and finally, re-assembling the parts into the whole. This procedure is dependent on two preconditions: (1) interactions between parts must be weak or nonexistent so that dissolution of relationships is possible without affecting the parts, and (2) relationships must be linear in nature in order to permit the given condition of summativity (Bertalanffy, 1968, p. 19).

Those two requisite conditions do not exist when dealing with entities defined as "systems". The definitional declaration of an entity as a system marks the elements of that entity as being in interaction with each other and marks that interaction as being the focus of any examination. As Cleland and King (1972) note:

> A system, by its very nature, is made up of interdependent elements. As such, actions which affect one element must affect others also. And actions of one element cause reactions on the part of others. The recognition of such interactions and interdependencies both within and without the organization is the essence of the systems viewpoint. (p. 77)

In a synergistic fashion, then, the whole is more than a simple sum of its parts. It assumes a charcter stemming not only from the parts but from the effects of their interactions and reactions as well.

With respect to a theoretical and empirical focus on organizational communication, the call for recognition of the holistic nature of systems demands that communication events be considered in context, the component elements of events not be reduced to the simplicity of linear analysis (i.e., source plus message plus receiver equals communication), and that the central focus of any analysis be the interaction/interdependency of component elements. As such, the demand is that perspective be retained on the interaction of who, where, when, and what of the communication incident.

Systems as Open Structures

Berrien (1968) defines open systems as "those [systems] which accept and respond to inputs (stimuli, energy, information, and so on), and closed systems are those which are assumed to function 'within themselves'" (p. 15). Thus, an open system is one which, by means of a permeable boundary, interacts with its environment, drawing upon the environment for those elements necessary to maintain its (the system's) existence. By contrast, a closed system maintains a rigid, nonpermeable boundary between itself and its environment.

A closed system is most readily analogous to what Gouldner (1959) refers to as the "rational model" of organizations while open systems correspond to the "natural-system model". The rational model emerged from a desire to control uncertainty so that reliable predictions concerning future actions and reactions might be made, thus achieving organizational efficiency. Closure of the system reduces uncertainty by specifying variables and their interactions. Environmental factors are included only if predictable, and factors internal to the organization receive rigid definition and treatment in order to "insure" predictability. According to Thompson (1967), predictability through organizational system closure is achieved by "assuming that goals are known, tasks are repetitive, output of the production process somehow disappears, and resources in uniform qualities are available" (p. 5). As such, specifiable structure and function assume precedence over less certain and/or controllable aspects of organizational existence.

The open system approach to organizational behavior dictates a quite different strategy. It is this "different strategy" which is ostensibly embraced by GST. Fundamentally, GST is concerned with relationships and interdependencies of element to element and element to environment as opposed to constant attributes of elements standing in isolation. While predictive reliability may be a goal of open system analysis, as it is with closed system analysis, the functioning

of the organizational system is viewed as a dynamic response to its environment--not a static state of existence.

Within the open systems perspective, this divergence from the rational model of organizations is embodied in the principle of "equifinality", i.e., more than one path exists to any desired outcome and, conversely, more than one outcome is conceivable from any path. This principle stands in direct opposition to closed system thinking which dictates a single-path-single-outcome viewpoint. Closed system thinking seeks the path to a defined goal while open system thinking explores a path and what it achieves. In comparing open system perspective with that of closed system, Katz and Kahn (1966) assert that:

> The major misconception [of the closed system strategy] is the failure to recognize fully that the organization is continually dependent upon inputs from the environment and that the inflow of materials and human energy is not a constant. The fact that organizations have built-in protective devices to maintain stability and that they are notoriously difficult to change in the direction of some reformer's desires should not obscure the realities of the dynamic interrelationships of any social structure with its social and natural environment. (p. 26)

It is essential to remember that the environment being dealt with is a function of the level and focus of analysis. As previously indicated, the term "environment" (suprasystem) might indicate the competition, clientele, or ecosystem if the total organization constitutes the system. On the other hand, the focus could be on the individuals who comprise the organization--on their relationships and interdependencies. In that case, the individuals constitute the system and the organization is the suprasystem.

Distinguishing the level of research focus is not a minor issue. Several

theorists have noted the conceptual and theoretical confusion which result from mixing levels of analysis (see, for example, Bertrand, 1972; Roberts, O'Reilly, Bretton & Porter, 1974; Ruben, 1972; L. Thayer, 1968a, 1972). The questions being asked and assertions being made should operate to codetermine the focal level and the appropriate research tools.

Criticisms of General Systems Theory

Having established some basic dictates of GST, it is time to turn attention to criticisms of that research paradigm. As mentioned previously, of particular interest are those critical comments which implicitly reflect the role accorded human communication. Two categories of such criticisms emerged from review of the literature: (1) overemphasis on and acceptance of consensus as the norm of intra-organizational functioning, and (2) overemphasis on and acceptance of hierarchy as the system structure and growth as the method of system adaptation to environment.

For the most part, the criticisms have been grounded in review of applications of GST to administrative science. Communication, per se, was not the focus of the applications in question, nor (with one exception) was it singled out as a central factor in the critical inquiries. Careful scrutiny of those investigations and their conclusions, however, points to communication as a key element in each of the difficulties cited.

Overemphasis on Consensus

Consensus, lack of appreciation for political manuvering within an organization, lack of appreciation for conflict, and lack of appreciation for diversity of values are all listed as primary assumptions/criticisms of GST applications to administrative science (Kast & Rosenzweig, 1972; Peery, 1972, 1975; F. Thayer,

1972). It is at this point that a clear distinction should be drawn between GST and applications of GST. Applications of GST quite clearly prize the construct of "consensus" and are written under the explicit or implicit assumption that anything or anyone not conforming to the established norm will be systematically eliminated. Typical of the approach taken is that exemplified by Cleland and King (1972). While explicitly recognizing the existence of a type of diversity (i.e., ". . . any organization is a system which is made up of segments, each of which has its own parochial goals" p. 78), they proceed from that point to assert that individualism is subsumed under and controlled by the overall organizational goal. What is best for the system assumes precedence over what is good for the subsystem and, by implication, is accepted willingly by the subsystem. (Similar examples may be found in Hellriegel & Slocum, 1976; Seiler, 1967; Scott & Mitchell, 1972.)

The assumptions of consensus, lack of conflict, lack of diversity are most readily detectable when one examines the definitions of "communication" which have been adopted by systems theorists. Typical of those definitions is the assertion that communication is "undertaken in order that decisions might be conveyed and decision-enactment evaluated." That is to say, communication is defined as a unidirectional mechanism for transmitting information. Either an executive decision is being relayed down to subordinates or, in a cybernetic sense, results from the enactment of the decision are being relayed up to superiors. In a linear sense, Simon (1961) defines communication as the process of transmitting decisions; for Scott (1969; Scott & Mitchell, 1972), communication is merely a "linking process"; and, Johnson, Kast, and Rosenzweig (1964) equate communication with feedback systems.

In essence, then, rather than achieving the proposed break from a mechanistic world view, applications of GST to management and administrative science

have in fact prolonged and extended that paradigm. Lee Thayer (1972), expanding upon this point, notes that:

> Much of what has been written and said of general systems theory to date is heavily, though tacitly, freighted with all kinds of philosophic residues and transforms of physicalism (e.g., the addition of "feedback" doesn't basically alter the S-R conception of human communication which is implicit in the conventional model), and this has impeded the mutual development of general systems theory as well as human communication theory in the study of human communication systems. (p. 99)

It is certainly not GST which has dictated a linear approach to communication and, therefore, the implicit assumption of consensus within organizational systems. But it is the application of a linear analysis and concepts derived from that analysis which has resulted in a glossing over of the diversity, conflict, and political manuvering which exist in organizations.

The overwhelming utilization of linear, mechanistic conceptualizations of human communication within GST formulations may be attributed to two factors. The first of these factors is the result of applications of GST while the second factor is the result of the GST paradigm itself.

As management is concerned with the process of decision-making, decision-transmission, and decision-enactment, the perspective adopted toward communication has been one which seemingly best represents that process. Classically, decisions are made by superiors and transmitted down to subordinates who then act upon the instructions. "Feedback" occurs as the superiors in question compare the predicted outcome of their instructions with the real outcome of the instructions. Difficulties with the process are often attributed to "semantic noise", i.e., the instructions were not worded appropriately (see, for example, Scott & Mitchell, 1972). Quite clearly, the "process" as described is linear and mechanistic in nature and, certainly, simplistic.

While, on paper, the "flow" of information may be channeled in that fashion, few communication theorists would wish to be guilty of equating channels for communicating with communication itself. It is equally erroneous to view communication solely as a matter of feedback, as many cybernetic applications do, or organizational communication as being exclusively involved with the decision-making/decision-transmission/decision-enactment process. But, while the inadequacy of such treatments of human communication is apparent, these conceptualizations predominant the literature.

The reason for this predominance may best be found within the declared objective of GST. As Bertalanffy (1968, 1972) has asserted, the domain of general systems theory is the search for isomorphisms common to "systems". While it has often been argued that caution be exerted against the adoption of superficial analogies which would serve to mislead by ignoring critical differences (see, for example, Berrien, 1968; Scott & Mitchell, 1972; Sutherland, 1973), human communication has been implicitly and explicitly considered the equivalent of electronic communication. Examination of definitions and discussions of communication reveals that those factors which characterize the flow of information from one computer to another (i.e., sender, signal, receiver) have been utilized to describe the communication of one human being with another.

In discussing possible approaches to general systems theory, Boulding (1967) suggests a "hierarchy of complexity" or a "system of systems" in which theoretical systems are divided into levels on the basis of complexity. Nine levels are suggested, beginning with the level of "frameworks" (i) and moving up to the level of "transcendental systems" (ix). In summarizing the scheme, Boulding states that:

Because, in a sense, each level incorporates all those below it, much

> valuable information and insights can be obtained by applying low-level systems to high-level subject matter. Thus most of the theoretical schemes of the social sciences are still at level (ii), just rising now to (iii), although the subject matter clearly involved level (viii). (p. 15)

It would appear that this is clearly what has occurred with regard to human communication. The level of analysis that has been applied is that of level (iii), the "thermostat". The subject matter, however, is more appropriately defined as level (vii), the "human" level, or that of level (viii), the "social organization". One must ask whether the difference in level of analysis versus level of subject matter has really resulted in "valuable information and insights" as Boulding asserted. Rather, it would appear that the superficial analogy drawn between electronic communication (the thermostat) and human communication has served to inadequately represent the complexities inherent in human communication. The end result has been, as Peery (1972, 1975) insists, an analysis which lacks appreciation for diversity, conflict, or political manuvering.

Overemphasis on Hierarchy and Growth

The second group of criticisms applied to GST was that it accepts, without question, hierarchy as the structure of all systems and growth as the method of system adaptation to environment. Both criticisms involve explicit or implicit assertions that the theorist approaches the system in question with a preconceived definition of the structure which will be found and the criteria which will be used to evaluate that structure.

The emphasis on hierarchy is the result both of GST having emerged from applications of biological principles to systems in general and of the definition of "organization" itself. The reliance of biologic sciences on hierarchical

schemes (e.g., moving from the single celled amoeba to multi-celled man) is obvious. Extended specifically to GST, Boulding (1967) offers his "hierarchy of complexity" previously referred to.

In addition to the biologic emphasis on hierarchy, most conceptualizations of organizations either explicitly or implicitly declare that organizations are hierarchically arranged structures. Returning to Schein's (1970) definition of "organization", as well as being a "rational coordination of activities", he asserts that an organization is "for the achievement of some common explicit goal through division of labor and function, and through hierarchy of authority and responsibility" (p. 9). Thus, Schein specifically designates the structure of organizations as being hierarchical in nature.

A matrix of related difficulties emerge from the emphasis on systems as hierarchical structures. A priori, the assumption is being made that open systems are self-differentiating entities. This self-differentiation is the product of systems growth which, along with systems survival, is a commonly accepted and employed criterion for judging organizations (Kast & Rosenzweig, 1972; Peery, 1972, 1975). The differentiation leads to specialization which, in turn, necessitates a hierarchical structure so that information might be "efficiently processed". As Peery (1972) points out in his discussion, that automatic acceptance of a hierarchical basis of living systems is "apt to emphasize the instrumental values of hierarchical structures rather than to encourage inquiry into alternative structural arrangements" (p. 507). The exploration of alternative structural arrangements would be particularly important for man-made systems, i.e., organizations. With respect to such systems, hierarchy is clearly imposed upon the structure by its designers. To presuppose the structure of man-made systems is to ignore the contrived nature of those systems and is to prolong a viewpoint which seemingly prizes uniformity over flexibility or adaptability.

Relating this difficulty specifically to the discipline of communication, F. Thayer (1972) argues that hierarchy embodies the implicit assertion that "all organized social interaction occurs between 'superiors' and 'subordinates'" (p. 482). As such, assumptions of linearity and consensus are once again being made. By nature, the communication which occurs between superior and subordinate tends to be linear, with the superior dictating appropriate courses of action for the subordinate to follow. Where that flow is reversed, linearity still exists in the cybernetic (feedback) sense as the subordinate responds to a superior's request for specific information. Thus, the construct of hierarchy preempts the suggestion found in many democratic models of organization that structural differentiation be reduced (Bennis, 1966; Lawrence & Lorsch, 1969). It emphasizes instead the formalized relationship as established by the roles of "superior" and "subordinate". And, that formalized relationship continues to promote the construct of consensus, i.e., the subordinate will accept without question those decisions dictated by the superior. That consensus is rarely defined as being problematic nor is it typically suggested that alternatives to the dictates of systems as hierarchies and systems as growth structures might be appropriate.

Alternative Perspective Toward Organizations as Systems

Based upon the review just completed, it would appear that the criticisms of GST have been well founded. Applications of the paradigm to administrative science and management theory do prize the construct of consensus and accept as automatic that the organizational structure will at all times be hierarchical in nature. It also seems apparent that these criticisms substantially reflect the perspective toward human communication which has been adopted by

organizational-GST theorists. That perspective has been one which draws far too heavily on the assumption that human communication is isomorphic with electronic communication. The end result is to view communication as a mechanism by which decisions are transmitted, thus implicitly assuming that consensus exists concerning the definition of the situation and appropriate actions to be taken.

In that emphasis on analogy ("isomorphisms as the basis of analysis") exists the predominant culpability of GST for the criticisms which have been made. It is the search for and acceptance of isomorphic "knowledge" by the GST paradigm which has resulted in the stress placed on consensus, hierarchy, and growth. As previously noted, however, from its very inception GST theorists have cautioned against the type of superficial analogy employed when human communication is defined as isomorphic with electronic communication. As a matter of fact, Bertalanffy (1967, 1968) himself has insisted upon the uniqueness of human beings as a product of perceptual differences and creative capabilities. He therefore implicitly recognizes human communication as distinctively different from electronic communication. One factor other than the search for isomorphisms, though, does enter in to contribute to and encourage the application of analogies with respect to human communication. That factor is dealt with by both Boulding (1967) and Kast and Rosenzweig (1972) as they assert that our goals overstep our ability for effective organizational analysis. According to Kast and Rosenzweig, "we vitally need the systems paradigm but we are not sufficiently sophisticated to use it appropriately" (p. 458).

While such an indictment may well have been true during the evolution of the GST position and its initial application to administrative science, research advances in two important areas have substantially overcome that difficulty. Developments in the fields of cognitive-constructivism and coorientation now

enable researchers to coherently examine and compare the perceptions and interpretations of individuals to situations in which they are involved. It is through the application of a "constructivist-coorientational" analysis to organizations and human interaction within organizations that we may effect a break from the prevailing mechanistic approach.

Constructivist Approach to Organizational Communication

Essentially, the constructivist position demands that human beings be recognized as active perceivers and interpreters of their environment. This stands in direct opposition to the mechanistic conceptualization of human beings as passive recipients of external stimuli. Constructivism embodies an "active organismic model of man" (for a more complete treatment, see Langer, 1969; Reese & Overton, 1970; Swanson & Delia, 1976). As Reese and Overton (1970) point out, "a primary characteristic of this model is its representation of the organism as the source of acts, rather than as the collection of acts initiated by external (peripheral) force" (p. 133). According to this position, human beings actively interact with their environments in the creation of personally meaningful worlds.

The constructivist perspective does not deny the existence of "reality" as such; rather, it insists that reality is apprehended by the individual through the use of personal "constructs", i.e., cognitive structures brought to the situation by that individual. Focusing on the perception of one individual by another individual, Delia (1976) describes the process as follows:

> This constructivist perspective implies directly that our understanding of other people is always in terms of images or impressions. The other is never a reflected reality. We can never directly apprehend another's intentions, inner qualities, or attitudes. Rather, in interpersonal

> perception the individual constructs an impression of the actions, qualities, or attitudes of the other through interpreting aspects of the other's appearance and behavior within particular cognitive dimensions. (p. 367)

Basically, the constructivist position is quite amenable to the GST perspective. By recognizing human beings as active in the perception of their environment (whether social or business), constructivism espouses an open systems point of view. Within constructivism, individuals are quite clearly seen as being in interaction with their environment and with the individuals (elements, components, subsystems) who are part of that environment. Additionally, constructivism maintains a holistic perspective (Delia, 1977; Morin, 1974; Reese & Overton, 1970) similar to that adopted by GST. Human existence and interaction are not defined as additive functions of component qualities or properties but, rather, are seen as assuming distinctive natures as product of the interrelationship of component elements. Within this framework, communication is seen as being an effort after shared meaning (Delia, 1977; Delia & Grossberg, 1977; Swanson & Delia, 1974). It involves both individual interpretations and socially shared codes for expressing or "conveying" those interpretations.

While the constructivist position is well established both in theoretical and methodological senses (see, for example, Adams-Webber, 1969, 1970; Bieri, 1955, 1961, 1966; Crockett, 1965; Kelly, 1955), there have been few applications of this research paradigm to the organizational domain (Hale & Hilpert, 1976). As applied specifically to organizational communication, constructivism receives its most cogent theoretical treatment in the writings of Lee Thayer (1963, 1967, 1968a, 1968b, 1972, 1975). In accord with the dictates of a constructivist position, Thayer (1968a) notes that "the way one is psychologically

(conceptually) organized determines how he communicates with his world and how his world can communicate with him" (p. 19). Beyond Thayer's treatment, the constructivist perspective has been implicitly recognized by many organizational theorists (see, for example, Argyris, 1964; Bertalanffy, 1968; Cleland and King, 1972; Kast & Rosenzweig, 1974; Schein, 1970) as they note individual perceptual differences, but has failed to be translated past recognition of those differences. As noted previously, that failure has contributed to the emphasis on consensus and lack of appreciation for diversity which critics of the GST position have so readily observed.

Coorientational Approach to Organizational Communication

Theoretical and methodological developments in one other relam are relevant to a revised perspective on communication in an organizational setting. Constructivism deals with the interpretive processes of individuals as each views a situation in question for self. Coorientation, as a theoretical framework, deals with one individual's perspective concerning a situation/topic/individual in relation to another individual's perspective concerning that same situation/topic/individual. Stemming from Newcomb's (1953, 1956, 1958) A-B-X model and Heider's (1958) theory of interpersonal relations, the coorientation framework assumes that "the conditions which account for communication behaviors can be defined in terms of the communicators' simultaneous orientations toward each other and toward mutually relevant objects in the environment" (Stamm & Pearce, 1974, p. 185). Thus, the focus of a coorientational analysis would be on the issue of consensus versus diversity in individual perspectives concerning a focal object. Within an organizational environment, this focus may be exploited both proactively and retroactively as one examines coorientation prior to and following communication.

As with constructivism, coorientation espouses many of the tenets basic

to the GST perspective. As it stresses perspectives in relation to each other, coorientation adopts an open systems viewpoint. It equally embraces a holistic position in that interaction and perception are seen as coterminous. The emphasis on interaction and interrelationship asserts a "dynamic systems" approach to communication.

But, as with constructivism, coorientational analysis has not been extended to the organizational domain. It has enjoyed both theoretical and methodological refinement over the past several years (see, for example, Carter, 1965; Chaffee, 1967a, 1967b; Chaffee & McLeod, 1968; Pearce & Stamm, 1973; Scheff, 1967; Stamm & Pearce, 1971, 1974; Wackman, 1971). However, those elaborations and refinements have remained outside the management and administrative science communities. Despite the relevance of coorientational analysis to many issues pertinent to organizations and organizational communication, literally no work has been done in that area.

Conclusion

Review of application of General Systems Theory to management and administrative science reveals that Peery (1972, 1975), F. Thayer (1972), and Kast and Rosenzweig (1972) are correct in their assessment. Applications of GST do emphasize consensus, growth and hierarchy while showing little appreciation for diversity or alternative structural guidelines. Further, it is evident that at least some portion of the problem may be attributed to the perspective which has been adopted toward communication. That perspective encourages the acceptance of consensus and hierarchy as norms of organizational functioning by failing to fully recognize and contend with individual differences in perception and interpretation of the organizational system.

An alternative approach to mechanistic analysis of organizational communication does, however, exist. By adopting a constructivist-coorientational

viewpoint, the general systems theorist may extend the dictates of a holistic analysis and open system perspective (basic to the GST paradigm) to the analysis of interaction within a system. Consensus is not assumed, nor would be diversity. Instead, such an analysis would be used to determine which circumstance prevails in the system under scrutiny. Both the theoretical basis and the methodology exist for such an analysis within an organizational system. In many cases, organizational theorists have already recognized the need for its implementation. As of yet, however, organizational communication is still viewed explicitly or implicitly as isomorphic with electronic communication. That analogy continues to result in an analysis which assumes consensus and respects a hierarchical (almost dictatorial) structure as a "goal" of open system organizations.

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